

REMARKS

In the non-final Office Action, the Examiner required a new title that is more descriptive of the claimed invention; rejected claims 1 and 10 under 35 U.S.C. § 112, second paragraph, as indefinite; rejected claims 10-18, 20-23, and 26 under 35 U.S.C. § 102(e) as anticipated by Passman et al. (U.S. Patent No. 6,493,759); rejected claims 1-7 and 9 under 35 U.S.C. § 103(a) as unpatentable over Passman et al. in view of Aihara et al. (U.S. Patent Application Publication No. 2002/0082035); rejected claim 19 under 35 U.S.C. § 103(a) as unpatentable over Passman et al. in view of Twitchell, Jr. (U.S. Patent Application Publication No. 2004/0082296); and rejected claims 24 and 25 under 35 U.S.C. § 103(a) as unpatentable over Passman et al. in view of Young et al. (U.S. Patent No. 6,487,186). The Examiner objected to claim 8 as dependent upon a rejected base claim, but would be allowable if rewritten in independent form to include the features of the base claim and any intervening claims.

By this Amendment, Applicants amend the specification and title to improve form, amend claims 10, 16, and 17 to improve form, cancel claim 26 without prejudice or disclaimer, and add new claims 27 and 28. Applicants appreciate the Examiner's identification of allowable subject matter, but respectfully traverse the Examiner's rejections under 35 U.S.C. §§ 112, 102, and 103 with regard to the claims as amended herein. Claims 1-25, 27, and 28 are pending.

In paragraph 1 of the Office Action, the Examiner alleged that the title is not descriptive of the claimed invention and required a new title. Applicants have amended the title to be more descriptive of the claimed invention. Accordingly, Applicants respectfully request the reconsideration and withdrawal of the requirement for a new title.

In paragraph 2 of the Office Action, the Examiner rejected claims 1 and 10 under 35 U.S.C. § 112, second paragraph, as allegedly indefinite. In particular, the Examiner alleged that "a cluster head" recited at lines 7 and 10 in claims 1 and 10, respectively, lacks antecedent basis.

Applicants disagree with the Examiner's rejection. The phrase "a cluster head" in claims 1 and 10 is not intended to refer back to anything in the claims and that is why "cluster head" is preceded by "a" instead of "the" or "said." Therefore, the phrase "a cluster head" does not warrant a rejection for lacking antecedent basis. Accordingly, Applicants respectfully request the reconsideration and withdrawal of the rejection of claims 1 and 10 under 35 U.S.C. § 112.

In paragraph 4 of the Office Action, the Examiner rejected pending claims 10-18 and 20-23 under 35 U.S.C. § 102(e) as allegedly anticipated by Passman et al. Applicants respectfully traverse the rejection.

A proper rejection under 35 U.S.C. § 102 requires that a single reference teach every aspect of the claimed invention either expressly or impliedly. Any feature not directly taught must be inherently present. In other words, the identical invention must be shown in as complete detail as contained in the claim. See M.P.E.P. § 2131. Passman et al. does not disclose the combination of features recited in claims 10-18 and 20-23.

Amended claim 10, for example, is directed to a method for configuring a wireless terminal within a wireless network. The method comprises operating the wireless terminal as a cluster head; determining whether the wireless terminal contains at least one functioning cluster radio; repeating the operating if the wireless terminal contains no functioning cluster radio; ascertaining whether continued operation of the wireless terminal as a cluster head is necessary if the wireless terminal contains one or more functioning cluster radios; and attempting to resign as the cluster head if the continued operation of the wireless terminal as a cluster head is not necessary.

Passman et al. does not disclose the combination of features recited in claim 10. For example, Passman et al. does not disclose determining whether the wireless terminal contains at

least one functioning cluster radio and repeating the operating as a cluster head if the wireless terminal contains no functioning cluster radio.

The Examiner alleged that Passman et al. discloses determining whether a cluster defined by operation of the wireless terminal contains the at least one functioning cluster radio and repeating the operating if the cluster contains no functioning cluster radio and cited Figures 2A-3 and column 3, line 62, through column 4, line 53, of Passman et al. for support (Office Action, pages 2 and 3). In Figures 2A-3, Passman et al. illustrates mobile stations operating as cluster heads "CH" and cluster members "CM" and connected to form various clusters. Nothing in these figures discloses determining whether the wireless terminal contains at least one functioning cluster radio or repeating the operating as a cluster head if the wireless terminal contains no functioning cluster radio, as required by amended claim 10.

At column 3, line 62, through column 4, line 53, Passman et al. discloses that the mobile communications station operates as a cluster head, resigns from operating as a cluster head, and maintains affiliation with a cluster head neighbor during a period in which the mobile station resigns from operating as a cluster head and commences operating as a cluster member of the cluster head neighbor (col. 3, lines 46-53). Nowhere in this section, or elsewhere, does Passman et al. disclose determining whether the wireless terminal contains at least one functioning cluster radio and repeating the operating as a cluster head if the wireless terminal contains no functioning cluster radio, as required by amended claim 10.

For at least these reasons, Applicants submit that claim 10 is not anticipated by Passman et al. Claims 11-16 depend from claim 10 and are, therefore, not anticipated by Passman et al. for at least the reasons given with regard to claim 10.

Amended independent claim 17 is directed to a wireless network. The wireless network comprises a plurality of first wireless terminals and at least one second wireless terminal. The

first wireless terminals are configured to operate as cluster heads by communicating with at least one other cluster head over one or more backbone links. Each one of the plurality of first wireless terminals includes one or more backbone transceivers. The at least one second wireless terminal is configured to operate as a cluster member by communicating with an associated cluster head over one or more local links. Each one of the at least one second wireless terminals includes one or more cluster transceivers. At least one of the first or second wireless terminals includes both a backbone transceiver and a cluster transceiver.

Passman et al. does not disclose the combination of features recited in claim 17. For example, Passman et al. does not disclose a first or second wireless terminal that includes both a backbone transceiver and a cluster transceiver. The Examiner alleged that Passman et al. discloses a first or second wireless terminal that includes both a backbone transceiver and a cluster transceiver and cited Figures 2-4 and column 1, lines 16-28, of Passman et al. for support (Office Action, page 4). Applicants disagree.

In Figures 2-4, Passman et al. illustrates mobile stations operating as cluster heads "CH" and cluster members "CM" and connected to form various clusters. Passman et al. discloses that communications between a cluster head and its cluster members include low-power communications and communications between cluster heads include high-power communications (col. 7, lines 21-30). Applicants describe similar low-power and high-power communication between cluster heads and/or members in Applicants' Background of the Invention section (e.g., pages 2-4). Passman et al. does not disclose, however, a wireless terminal that includes both a backbone transceiver and a cluster transceiver, as required by claim 17.

For at least these reasons, Applicants submit that claim 17 is not anticipated by Passman et al. Claims 18 and 20-23 depend from claim 17 and are, therefore, not anticipated by Passman et al. for at least the reasons given with regard to claim 17.

In paragraph 6 of the Office Action, the Examiner rejected claims 1-7 and 9 under 35 U.S.C. § 103(a) as allegedly unpatentable over Passman et al. in view of Aihara et al. Applicants respectfully traverse the rejection.

Applicants submit that Passman et al. does not qualify as prior art under 35 U.S.C. § 103(a). Accordingly, a rejection under 35 U.S.C. § 103(a) based on Passman et al. is not a proper rejection.

35 U.S.C. § 103(c) qualifies 35 U.S.C. § 103(a) and states:

(c) Subject matter developed by another person, which qualifies as prior art only under one or more of subsections (e), (f), and (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

(35 U.S.C. § 103(c)). Passman et al. qualifies as prior art only under 35 U.S.C. § 102(e), and Passman et al. and the present application are both assigned to BBNT Solutions LLC. The inventors of both the Passman et al. patent and the present application were subject to an obligation at the time the invention was made to assigned their rights in the invention to BBNT Solutions LLC. Accordingly, Passman et al. is not available to preclude patentability under 35 U.S.C. § 103(a).

For the Examiner's reference, Applicants note that Passman et al. is not available under 35 U.S.C. § 102(a) as the language "known or used by others" refers to knowledge or use which is available to the public. See M.P.E.P. § 2132. Passman et al.'s publication date of December 10, 2002, is after the filing date of the present application. Therefore, Passman et al. does not qualify as prior art under 35 U.S.C. § 102(a).

For at least these reasons, Applicants respectfully request the reconsideration and withdrawal of the rejection of claims 1-7 and 9 under 35 U.S.C. § 103(a) based on Passman et al. and Aihara et al.

In paragraph 7 of the Office Action, the Examiner rejected claim 19 under 35 U.S.C. § 103(a) as allegedly unpatentable over Passman et al. in view of Twitchell, Jr. Applicants respectfully traverse the rejection.

As explained above, Passman et al. does not qualify as prior art under 35 U.S.C. § 103(a) with regard to this application. Accordingly, a rejection under 35 U.S.C. § 103(a) based on Passman et al. is not a proper rejection.

For at least these reasons, Applicants respectfully request the reconsideration and withdrawal of the rejection of claim 19 under 35 U.S.C. § 103(a) based on Passman et al. and Twitchell, Jr.

In paragraph 8 of the Office Action, the Examiner rejected claims 24 and 25 under 35 U.S.C. § 103(a) as allegedly unpatentable over Passman et al. in view of Young et al. Applicants respectfully traverse the rejection.

As explained above, Passman et al. does not qualify as prior art under 35 U.S.C. § 103(a) with regard to this application. Accordingly, a rejection under 35 U.S.C. § 103(a) based on Passman et al. is not a proper rejection.

For at least these reasons, Applicants respectfully request the reconsideration and withdrawal of the rejection of claims 24 and 25 under 35 U.S.C. § 103(a) based on Passman et al. and Young et al.

New independent claim 27 is directed to a wireless terminal. The wireless terminal comprises means for determining whether the wireless terminal includes at least one cluster radio; means for determining whether the wireless terminal includes at least one backbone radio

when the wireless terminal includes at least one cluster radio; means for operating as a cluster head when the wireless terminal includes at least one cluster radio and at least one backbone radio; and means for operating as a cluster member when the wireless terminal includes at least one cluster radio but no backbone radio. New claim 28 depends from claim 27 and recites means for operating as a cluster head when the wireless terminal includes no cluster radio. None of the references of record discloses the combination of features recited in claims 27 and 28.

In view of the foregoing amendments and remarks, Applicants respectfully request reconsideration and allowance of pending claims 1-25, 27, and 28.

Applicant believes no fee is due with this response other than as reflected on the enclosed Amendment Transmittal. However, if a fee is due, please charge our Deposit Account No. 18-1945, under Order No. BBNT-P01-144 from which the undersigned is authorized to draw.

Dated: January 26, 2005

Respectfully submitted,

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